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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,507

06/23/2005

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EXAMINER

SINGH, SUNIL

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,507	<b>Applicant(s)</b> BONNEMAIRE ET AL.	
	<b>Examiner</b> Sunil Singh	<b>Art Unit</b> 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-15,17-31,33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) 33 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-15,17-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14,30 "at its wider edge" lacks clear antecedent basis.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 17,18,20,28 are rejected under 35 U.S.C. 102(b) as being anticipated by WO document (WO0153651).

WO document '651 discloses a loading system (see Fig. 1) for transferring hydrocarbons between a sea bed installation and a vessel floating at a sea surface, comprising: a vessel floating at a sea surface; and a flexible riser system comprising: a flexible riser (1), protection means (2) connected to the vessel configured to protect the riser from impact, the protection means being submerged below the vessel and covering at least an upper part of the riser, and terminating above the sea bed, the protection means being formed of a plurality of separate units suspended from each other and a stretching means or a tensioning means (7) arranged at a lower end of the protection means.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 19, 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO document '651 in view of Ortloff et al. '919.

WO document '651 discloses the invention substantially as claimed. However, WO document is silent about the riser (protection means) being suspended from a turret buoy. Ortloff et al teaches a riser (protection means) being suspended from a turret buoy (see Figs. 3, 5) having mooring lines. It would have been considered obvious to one of ordinary skill in the art to modify WO document by having the riser suspended from a turret buoy as taught by Ortloff et al. since such a modification allows for weathervane of the vessel.

With regards to claim 21, it would have been considered obvious to modify WO document by substituting the mooring lines as taught by Ortloff et al. for the mooring lines disclosed by WO document since such a modification allows for weathervane of the vessel. It would be considered obvious to one of ordinary skill in the art to modify the member (7) of WO document by mooring it to the sea bed by means (28) taught by Ortloff et al. to allow for weathervane of the vessel.

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6. Claims 1,2,4,6,8-11,12,13-15, 17,22,23,24,25,26-27,29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO document '651 in view of Bennett (US 2419053).

WO document '651 discloses a flexible riser system for a loading system for transferring hydrocarbons between a sea bed installation and a vessel (15) floating at a sea surface, comprising: a flexible riser (1) and protection means (2) configured to protect the riser from impact when the riser is connected to the vessel, the protection means being submerged vessel and covering at least an upper part of the riser and terminating above the sea bed when the riser is submerged and connected to the vessel, the protecting means being formed of a plurality of separate units suspended from each other, the protecting means further being provided with a stretching means or a tensioning means (7) attached to a lower end of the protection means (see Fig. 9), wherein the riser in the vicinity of the stretching or tensioning means is provided with a collar (this is considered as member (2) where member (7) is mounted). WO document discloses the invention substantially as claimed. However, WO document is silent about the separate units being arranged to be movable in transverse direction. Bennett teaches separate units (6,26, see Figs. 2,8) designed to be movable in transverse direction (see Fig. 2). It would have been considered obvious to one of ordinary skill in the art to modify WO document to provide units movable in transverse direction as taught by Bennett in order to reduce VIV.

Re claim 6, the inner surface of member (7) is considered curved since it is mounted to curved member (2) in Figure 9 of WO document .

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With regards to claim 8,9, 24,25, WO document is silent about the units/stretching means being connected via chains or lines. Bennett teaches connecting units/stretching means via chains or lines (8). It would have been considered obvious to one of ordinary skill in the art to modify WO document by substituting the connection means as taught by Bennett for the connection means disclosed by WO document since such a modification allows for the controlling of spacing between units.

With regards to claim 10-11,13-15,26-27,29-31, WO document (as modified above) is silent about the units being truncated and conical with a smaller upper diameter and larger lower diameter. Bennett teaches units being truncated and conical with a smaller upper diameter and larger lower diameter (see Fig. 8). It would have been considered obvious to one of ordinary skill in the art to further modify WO document (as modified above) by providing truncated conical shaped units as taught by Bennett (Fig. 8) since such a modification allows for stacking.

Re claim 13, friction reducing layer is considered as member (2) in Fig. 2 of Bennett.

7. Claims 3,5 rejected under 35 U.S.C. 103(a) as being unpatentable over WO document in view of Bennett as applied to claim 1 above, and further in view of Ortloff et al.'919.

WO document (once modified) discloses the invention substantially as claimed.

However, the (once modified) WO document is silent about the riser (protection means) being suspended from a turret buoy. Ortloff et al teaches a riser (protection means) being suspended from a turret buoy (see Figs. 3, 5) having mooring lines. It would have

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been considered obvious to one of ordinary skill in the art to further modify the (once modified) WO document by having the riser suspended from a turret buoy as taught by Ortloff et al. since such a modification allows for weathervane of the vessel.

With regards to claim 5, it would have been considered obvious to modify WO document by substituting the mooring lines as taught by Ortloff et al. for the mooring lines disclosed by WO document since such a modification allows for weathervane of the vessel. It would be considered obvious to one of ordinary skill in the art to modify the member (7) of WO document by mooring it to the sea bed by means (28) taught by Ortloff et al. to allow for weathervane of the vessel.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1,17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (571) 272-7051. The examiner can normally be reached on Monday through Friday 10:30 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sunil Singh/  
Primary Examiner, Art Unit 3672

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Primary Examiner  
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